DOCUMENT RESUME

ED 083 201 SP 006 994

| | |
|---|---|
| TITLE | A National Design for the High School. |
| INSTITUTION | American Federation of Teachers, Washington, D.C. |
| PUB DATE | [73] |
| NOTE | 30p. |
| AVAILABLE FROM | American Federation of Teachers, AFL-CIO, 1012 14th St., N.W., Washington, D.C. 20005 (High School C591-3 single copy $.50, twenty-five copies $.25 each) |
| EDRS PRICE | MF-$0.65 HC-$3.29 |
| DESCRIPTORS | Curriculum Planning; *Educational Planning; Facility Guidelines; Secondary Education; Secondary Schools; *Teacher Education |
| IDENTIFIERS | Comprehensive Program for American Schools |

ABSTRACT

These guidelines discuss philosophy, structure, staffing, curriculum facilities, and program direction as salient factors in school design. Also included as important organizational considerations are special school services, educational tools and supplies, auxiliary assistants, staff training, and research and evaluation, democratic staff involvement, integration, and cost effectiveness studies. (JB)

ED 083201

★COMPREHENSIVE PROGRAM FOR AMERICAN SCHOOLS

# A NATIONAL DESIGN FOR THE HIGH SCHOOL

U S DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION
THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

AMERICAN FEDERATION OF TEACHERS, AFL-CIO

SP 006 994

FILMED FROM BEST AVAILABLE COPY

## TABLE OF CONTENTS


| | |
|---|---|
| Foreword | 1 |
| Preface | 2 |
| Introduction | 3 |
| Philosophy | 3 |
| Structure | 3 |
| Staffing | 4 |
| Facilities | 5 |
| Curriculum | 5 |
| Program | 6 |
| Special School Services | 7 |
| Educational Tools and Supplies | 7 |
| Auxiliary Assistants | 7 |
| Staff Training | 8 |
| Research and Evaluation | 8 |
| Democratic Staff Involvement | 9 |
| Integration | 9 |
| Cost | 10 |
| Summary | 10 |
| Concluding Statement | 12 |
| Appendix A—Other Factors | 13 |
| Appendix B—Research and Experimentation | 14 |
| Appendix C—John Dewey High School—A Model for Innovation | 16 |
| Appendix D—A Model for an Alternative School | 25 |
| Appendix E—A Model for Open Classroom Procedures | 27 |



**High School C591-3**
**Single Copy .50¢**
**Twenty-Five Copies .25¢ each**

## FOREWORD

Almost as soon as the right to collective bargaining began to be won by teachers in the early 1960's, members of the American Federation of Teachers started to translate their conceptions of optimum teaching and learning conditions into the language of collective bargaining contracts.

The first such design was negotiated for a selected number of elementary schools in New York City in 1964. Similar programs were incorporated into union contracts in Cleveland, Baltimore, Yonkers, Chicago and Detroit and into legislation in California and Colorado.

The most famous of these programs was the More Effective Schools plan in New York. It provided for four teachers for every three classes; class size maximums of 22 (15 in kindergarten); increased supportive personnel, such as psychologists, psychiatrists, speech and hearing therapists; reading, art, drama and other specialists; more teacher aides, and greater teacher and parent involvement in administrative decision-making in the school.

The More Effective Schools program was tested, retested and tested again. Such agencies as the Psychological Corporation and the American Institutes for Research found that it accelerated the learning rate of children, just as the teachers who designed it planned that it would, and the United States Office of Education chose it as "exemplary." Project READ in Chicago, the Neighborhood Education Centers in Detroit and other saturation programs showed similar successes.

The demand for similar designs at all levels of education—from pre-school to the community college—prompted the Executive Council of the AFT to establish the Council for a Comprehensive Program for American Schools (COMPAS), under the chairmanship of Simon Beagle, who headed the National Council for Effective Schools for many years and is a nationally known advocate of grassroots teacher involvement in educational design and decision-making.

The work of the various COMPAS committees under Mr. Beagle's tutelage has resulted in four National Designs—for the elementary school, the middle school, the high school and the community college. The AFT is proud to present its Comprehensive Program for American Schools as its answer to those critics who believe that the way to solve the problems in education is somehow to tinker with the only relationship which results in learning—that between the teacher and the taught.

*David Selden, President*
*American Federation of Teachers*

## PREFACE

This report is the result of much thought and study by members in the American Federation of Teachers. The basic guidelines were first suggested by the Senior High School Committee of the United Federation of Teachers (UFT), AFT Local 2. These guidelines were studied and discussed at a series of AFT regional conferences held during the 1971-72 school year. A tentative draft, including suggestions from these conferences, was prepared and submitted to AFT locals throughout the country for their reactions and suggestions. A final draft was then approved by the AFT Executive Council.

*Simon Beagle, Chairman*
*National Council for a Comprehensive*
*Program for American Schools (COMPAS)*

*September, 1973*

## THE RE-DESIGNED HIGH SCHOOL

### Introduction

This proposal pre-supposes that there is no single plan or structure which will or should fit the needs of all students. Moreover, the proposal details educational experiences which should provide for considerable educational diversity.

However, the recognition of the crucial need for diversity does not mean that all educational structures are equally good or that some organizational patterns should not be preferred over others. We consider the following proposals about the structure, organization and curriculum to be the best way to improve the educational environment in our nation's high schools.

### Philosophy

Our proposals are based upon *four* premises which give the report unity and direction. These are:

1. High schools must provide a meaningful educational experience for all students whether they differ in ability or socio-economic background. Specifically the educational experiences in a high school must be diverse and open to all students.
2. High schools must structure their educational experiences to foster meaningful educational inter-actions between the school, parents, and the immediate larger community. We accept the principle of interchange between students, teachers and urban resources. We reject any educational concept which limits the inter-change and isolates students and teachers from the urban resources.
3. High schools must be particularly sensitive to the changing needs and interests of both students and teachers, especially in a time of rapid technological change and anticipated increased pace of change.
4. High schools must cultivate an educational environment which protects and nurtures student and teacher individuality within a framework of personal security and social responsibility. Schools must provide for both teachers and students important areas for individual choice, self-initiated activities and individualized instruction and counseling.

To achieve these goals, the following structure, staffing, facilities, curriculum and program are necessary.

### Structure

A comprehensive high school of approximately 2,000–2,500 students with a flexible curriculum affords the most meaningful structure for the typical high school in the 1970's. By comprehensive, we mean that the curriculum, offered to all students, should include liberal arts, pre-professional and trade and technical courses which would prepare the student for entry into a particular occupation, as well as maintaining the option of continuing education. Again, it is necessary to note that the advocacy of the comprehensive high school as the typical structure does not mean that alternative forms of education should not exist for a limited number of students with special needs. For example, students who have to work but wish to continue their education, or those who wish to major in music, art,

performing arts and those older students who only wish to prepare for the equivalency examination so that they can continue their education in a technical vocational school.

**Staffing**

Without a sensitive, secure, enthusiastic staff, no urban high school can transform brick and steel into an educational institution which is sensitive to student needs, or receptive to the subtle interplay among teachers, pupils and parents. To achieve this within the comprehensive high school of the 1970's, there must be a sense of equality between staff and administration as well as an innovative use of teachers and other supportive personnel.

No program can succeed, especially one which depends upon teacher flexibility, creativity and sensitivity without the necessary number of teachers and supportive personnel. Consequently, there must be a pupil-teacher ratio which provides for individualization of instruction and cooperative development of curriculum by teachers and pupils.

In addition to the actual teaching staff, there must be a sufficient number of supportive staff, such as, guidance counselors, school aides, para-professionals, social workers and security guards to handle the usual tasks of attendance, patrol and the increasing burden of security. Moreover, there should be an increasing use of specialists to provide teachers with technical assistance in the use of the newer media.

1. To enable teachers to individualize instruction and plan curriculum cooperatively, teachers should teach a maximum of four forty-minute periods or eight twenty-minute modules if the school is so organized. (Note: Modular scheduling is an organizational technique providing for flexibility in the use of time for student classes. Classes may be 1, 2, 3, or 4 modules in length depending on educational need.)

2. To help humanize the school environment, for one period a day—forty minutes or two modules, teachers should be available to confer individually with students who need remediation or are pursuing an independent research topic.

3. Class registers in all non-shop subjects should contain no more than twenty-two students. Class registers in occupational subjects should not be more than fifteen.

4. Teachers should receive a time allotment for the preparation of curriculum materials so that the prepared materials are excellent and immediately relevant to their students.

5. Provision should be made for ongoing teacher training, research and reevaluation of the redesigned high school.

6. There should be one full-time licensed guidance counselor for every 200 students to allow students to discuss privately their educational and vocational interests. This ratio would allow the guidance counselor to use his time exclusively for counseling.

7. To make it possible for teachers to devote all their time to teaching, there should be sufficient number of secretaries, para-professionals and security guards who should take attendance, patrol, fill out college applications, etc. In addition, schools should make the maximum use of

data processing so that information about all students is instantly retrievable.

8. There should be a sufficient number of laboratory specialists and audio-video technicians to help the teachers with the preparation of experiments, tapes, etc. Specifically, each 2,500 pupils need two full-time audio-visual technicians, and laboratory specialists for Math, Foreign Languages, Physical Science and Biological Science, and Industrial Arts.

**Facilities**

Much of what occurs in a school or classroom is influenced by its facilities. Although education is more than any building, the space, its proportions, divisions and flexibility directly influence the course offerings, the type of teaching, and, more important, the educational climate.

The two most important concepts which should shape the type of facilities in a comprehensive high school of the 1970's are flexibility and availability. Both are necessary if the school is to generate an atmosphere that is sympathetic to innovation and promote individualization of instruction.

By flexibility we mean two distinctly different things. One, the building must contain a sufficient number of different types of rooms or convertible spaces to provide varying-sized groups with adequate space. Secondly, the space must be easily divisible or unified as needs of teachers and pupils change daily.

1. There must be ample space for 2,000–2,500 full-time students without overlapping, double, triple or split sessions. This shall include ample space to guarantee the safety of students in all classrooms including shops, gyms, music rooms, and other specialty areas. (Note: It is suggested that flexibility may be used in applying the maximum student population where the school building site is in a high-population density area and high-real-estate cost area.)

2. There should be a sufficient number of shops to accommodate instruction in at least six occupational skills.

3. Every classroom should contain built-in audio-visual aides, such as screens, projectors, maps, tape recorders, etc.

4. Staffed subject area resource centers should be directly adjacent to classrooms where students can engage in independent study or committee work.

5. Suites of rooms should be available to facilitate the organization of mini-schools of approximately 100–400 students who have similar interests such as College Bound, Practical Nursing, etc.

6. Each floor would have a large professionally-staffed library media center for independent research.

7. There should be professional staffed laboratories for remediation in Mathematics and Reading.

8. There should be office space for each teacher, as well as an office for each guidance counselor.

9. All schools should have co-educational facilities.

**Curriculum**

The curriculum of the 1970's must be a direct outgrowth of pupil-teacher interaction and developed cooperatively, within the school,

within the framework of City and State standards. Therefore, teachers must be given time to originate and evaluate curriculum materials. Sufficient time to attend curriculum conferences and workshops should be provided. Teachers and pupils must also be involved directly in the ordering of books and materials.

The curriculum itself should contain a wide range of course offerings within which the student, with the proper guidance, should be free to choose. Students should be able to pursue either a Liberal Arts, Pre-Professional or Trade and Technical program.

1. Teachers should have sufficient time for the cooperative development of curriculum materials so that the curriculum is specifically designed to meet the individual needs of students in a particular high school.
2. All curriculum areas should have equal value.
3. Students should not be required to repeat the same courses they have failed in those subject areas where other equally-acceptable courses exist to meet state requirements. The student high school transcript shall reflect all courses taken and grades received. (Note: There is a limited number of courses that are sequential.)
4. Wherever possible curriculum materials should utilize community resources to extend the range of students' experiences as well as make the students more conscious of the community in which they live.

Examples of specific curriculum techniques which we endorse are: independent study, educational skills center, 4-1 programs, and the open classroom. (See appendix)

**Program**

The program should provide a flexible vehicle for teacher and pupil inter-action and assist both in achieving their educational goals.

1. Students' programs should contain at least 8 forty-minute periods including lunch, or, if the school is organized on 20-minute modules, then a typical program should have a minimum of 16 modules. This is the very minimum for all students to achieve the necessary educational goals.
2. There should be a complete program of co-curricular activities, including sports, clubs, etc. open to every student. Students enrolled in trade and technical programs should be provided with a minimum of nine 40-minute periods including lunch (or its equivalent).
3. Each student should be able to select his or her program with the assistance of a qualified guidance counselor who is personally responsible for all the educational guidance of the student.
4. Where possible, and where the staff so desires, the school year may be divided into the appropriate number of 7–8 week cycles to allow greater flexibility and variety of courses. To carry this out, computer time should be available for programming.
5. Where possible, both teachers and pupils should have the widest possible choice of courses consistent with the total structure of the school and consistent with excellence in quality education.

## SPECIAL SCHOOL SERVICES

Today a school is called upon to meet non-educational needs of students which formerly were met by the home or by the community. A student's medical, dental, nutritional, social and emotional needs are directly related to his or her school achievement. This is especially true for the many students who live in economically deprived areas and homes. The AFT recommends:

- Each school should have readily available medical, dental, and nutritional services for students who may need such.
- Each school should have adequate psychological, guidance and social work services available when and where such services are required. A clinical team consisting of a clinical psychologist, a guidance counselor and a social worker should be made available for each school with registers of 500 or more. Schools with registers below 500 can plan to share the services of such supportive clinical teams (perhaps one team for two schools).

## EDUCATIONAL TOOLS AND SUPPLIES

Students and their teachers need a wide variety of educational texts, material and equipment. School districts must provide a budget for each school to permit it to obtain such needed educational tools and equipment readily, without delay, when needed by the school staff. The AFT recommends:

- The overall needs of the school and its components should be budgeted in advance for the entire school year.
- Each school should be allowed a special contingency fund based on school registration and its special programs to allow it to meet its own special needs without undue delay.
- Teachers should be encouraged by providing a class "kitty fund" to develop new and creative instructional material and programs.
- A non-complicated but effective accounting system should be set up for each school under the direction of a staff member knowledgeable about accounting procedures.

## AUXILIARY ASSISTANTS

Schools, like hospitals do now, must free their professional staffs from time and energy-consuming chores which can best be performed by non-professionals. In order to permit our educators, especially the classroom teachers, to meet their professional responsibilities, the AFT recommends:

- The employment of a sufficient number of school auxiliaries (teacher aides) to perform those duties which now are being performed by the professional staff, e.g., patrols, collection of funds, delivery of supplies, care and delivery of special equipment, care of bulletin boards, record keeping, and such other non-teaching duties which now consume the time and energy of the professional staff.

• The development of guidelines which would protect the rights of such school aides while making effective use of them.

## STAFF TRAINING

There is general recognition that effective teacher training programs are most important for effective education. This is especially true for staffs in those schools which may be selected to begin implementation of such programs as suggested by the AFT. The AFT recommends:

• Discussions be held between the school district and the nearby colleges and universities which train the major segments of the district's school staff to formulate realistic teacher pre-service education programs.

• The selected schools become educational laboratories for such colleges and universities with possibilities for training programs for teachers during the school day and after school hours.

• The selected schools become teacher resource and teacher training centers with carefully planned cooperation between schools of education and the school district.

• The staff exchange program to be planned and implemented between the selected schools and the schools of education in each of the cooperating colleges and universities.

• The cooperation and involvement of the State Department of Education be sought.

• Time and resources be scheduled for all involved in such staff training programs.

## RESEARCH AND EVALUATION

No one discipline or professional group has a monopoly of wisdom or all the needed skills even in its own special area. Education is no exception. The need for continuing research is important and so is the need for timely well-conducted evaluation of educational experimentation and programs resulting from such research. This is, of course, also true of existing educational programs. Of paramount importance is the involvement of the actual practitioners, the classroom teachers, in such research and evaluation. The AFT recommends:

• Classroom teachers must be provided the time, resources and special assistance to carry on their own research; experimentation with innovative use of techniques, material, curriculum content; cooperative evaluation of the results of their research and experimentation; and corrective modifications as they may be suggested by the findings from such evaluation.

• Provide for an evaluation of the total school program by an accredited outside evaluative agency with the school staff involved in the process.

## DEMOCRATIC STAFF INVOLVEMENT

It is essential that the school staff, especially the classroom teachers, be genuinely involved in determining school policy, and in the implementation of such policy as may concern them. Such involvement will make for effective cooperation, coordination and implementation by a concerned understanding staff—to the advantage of the students. The AFT recommends:

- Teachers, individually and collectively through their chosen representative, should have opportunities to consult with the school administration and be involved in decision-making policies.
- Time must be scheduled for such discussions, consultations and classroom preparation.
- There should be enough personnel to allow each classroom teacher to meet with colleagues, parents, students, community leaders, supportive services, etc. without depriving children of instructional time.
- Each staff member should be scheduled time to make this possible.

## INTEGRATION

The AFT's program stresses that quality education and school integration are both necessary if we are to educate our nation's youth to live in and give support to an integrated society to which they are committed and in which they have a personal stake. Such an integrated and pluralistic society does not mean the elimination of the values that can be derived from the sharing and the development of the contributions from the multi-ethnic groups in our nation.

Therefore, the AFT recommends:

- The elimination of the track system.
- The organization of heterogeneous class groups based on sex, class, race, ethnicity, achievements, adjustment, etc. Since the AFT national high school design makes possible individual student programming, the organization of heterogeneous class groups should create no problems.
- The training of staffs in the techniques and understandings needed to work effectively with such heterogeneous class groups.
- The creation and purchase of materials and texts furthering integration.
- The development of proper relationships with all groups in the school and in the community.
- The establishment of parent and community education programs.
- The creation and use of opportunities for inter-and intra-group involvement in the educational process.

The AFT recognizes that there are many local situations which make full racial, ethnic, or religious integration difficult because of the preponderance of a single class, ethnic, religious or racial group. Such situations exist in many areas in Washington, D.C., New York City, and in most large urban centers. However, there is enough evidence to indicate that quality schools, even if located in ghetto areas, will attract students from non-ghetto areas because of their quality.

## COST

It is estimated that $600 more per student per year can make it possible for a school to implement a program based on AFT suggested guidelines provided space is available. The difference in cost may result from variations in cost factors in the different communities.

It costs an average community about $6,000 per year to contain a wrong-doer in a detention center when youngsters get into "trouble." It costs $6,000-$8,000 per student per year in a job-training program for dropouts. How much does it cost society to maintain our growing numbers of unemployables (poorly educated youths) on welfare? How much does it cost society to fight drug addiction? (Most drug addicts come from the ranks of the poorly educated.) Even if the program helped only 25 percent of the students who, without such programs, would join the ranks of the dropouts and unemployables, society would more than recoup what it may spend for effective education. As Prof. Alan Campbell so well stated in his report to the California School Boards Association (July 1966), "Piecemeal, part-time efforts by school districts to improve the lot of educationally disadvantaged children are wasteful and virtually useless."

The cost for AFT programs is really minimal when compared to the cost to taxpayers for providing the funds needed to pay for the social and economic consequences resulting from our failure to provide for effective education.

## SUMMARY OF THE BASIC EDUCATIONAL GUIDELINES FOR A REDESIGNED COMPAS HIGH SCHOOL

- It is comprehensive.
- It is co-educational.
- It serves *all* students.
- It is viable in size for a total student register of between 2,000 to 2,500.
- It provides opportunities for the advancement of the gifted child.
- It provides opportunities for success for the slow learner and for those who enter with some educational deficits.
- It provides the needed teaching-learning conditions for the physically-handicapped and the emotionally-troubled.
- It provides high-skill training for the mechanically-gifted and repetitive skills training for the less-capable students.
- It is a dual-purpose school which puts as much stress on the importance of occupational training as it does on academic training.
- It requires all students, during the first year, to take double-period exploratory in six (6) different skill areas.
- It provides a sufficient number of shops to accommodate at least 50% of the school population who may select an occupational skill as their major.

- It requires the vocational student to take his vocational major for a minimum of four periods a day for three years.
- It is sensitive to the changing needs and interests of both students and the staff.
- It provides for both teachers and students important areas for individual choice, self-initiated activities and individualized instruction and counselling.
- It provides the student with the choice of attending school for an additional period per day to enrich the program.
- It provides a curriculum which will qualify both a vocational and an academic major for entry into the college of their choice.
- It has a school plant to accommodate all phases of quality education including a sufficient number of shops for instruction in at least six different occupational skills.
- It provides a 13th year skills program on a full-day basis, which offers students the equivalent of a two-year high school occupational course.
- It makes the 13th year skills program available to:
  a. high school graduates who wish to learn a particular skill
  b. college dropouts who wish to learn a skill
  c. adult and young workers who wish to upgrade their skills
  d. unemployed youths and adults
  e. high school dropouts
- It provides a full-time employment counselor with a background of industrial experience working with the state employment service and the labor department.
- It provides for the formation of an active career education or vocational advisory board.
- It provides for the follow up of graduates and dropouts up to the age of 25 for purposes of re-evaluating the relevance of the academic and occupational curriculum.
- It provides adequate counselling services both by teachers and guidance counsellors and other supportive clinical services.
- It provides for auxiliary services to allow teachers to devote their full time to teaching.
- It has a staff ratio which permits maximum registers of 22 on all non-shop subject classes and maximum registers of 15 in classes teaching occupational subjects.
- It provides for the employment of a sufficient number of laboratory specialists and audio-visual technicians.
- It provides equal value to all curriculum areas.
- It provides a complete program of co-curriculum activities.
- It provides for the training and employment of highly-qualified committed staff.
- It allows and provides for flexibility in programming, instruction, in use of materials and of school and classroom space.
- It provides for on-going evaluation of special projects and total programs of staff and student activities.
- It utilizes the resources of the community.
- It permits a great deal of latitude and opportunity for a fluid,

flexible approach to school and class organization, largely to be determined by the specific needs and development in each of the schools. The classroom teachers can play a leading role in the decision-making process.

## CONCLUDING STATEMENT

This national design for the high school is devised to meet today's educational needs of the schools. Hopefully, the additional space, trained staff, and the budgetary resources needed to implement the design's basic guidelines will offer opportunities for creative thinking and experimentation with new and modified teaching and supervisory practices; for improved school and community relationships; for new and creative use of teaching materials; for creative and effective use of personnel; for a new look at our children, their needs, and their potential for learning; and for a study and evaluation of the teaching and learning processes.

The AFT does not offer the suggested design as the final and only solution to the many problems facing our high schools. Improvements are open-ended. No one group or one discipline is today in a position to propose final solutions. The joint effort of many related groups and related disciplines is necessary. However, since the AFT's major responsibility is to advance the cause of public education, it must continue to meet this responsibility in an active, intelligent, and forceful manner. The educational needs of our nation mandates others to join this effort.

*Simon Beagle, Chairman*
*COMPAS Council*

## APPENDIX A
## OTHER FACTORS

### Staff Growth

The catalytic agent in moving forward any program is the staff assigned to bring into action the suggestions culled from every source. In addition to the suggestions given in the section on staff training, the following suggestions for staff growth should be emphasized:

**Professional Library** Each school in the program should have a professional library appropriate to the size of the staff and the diversity of their problems.

**Foreign Language** Each school should provide opportunity on an optional, voluntary basis, for staff members to learn the language spoken by many students in the school (Italian, Spanish, French, and so on).

**Operation Understanding** Members of the staff should have the opportunity to participate in a program similar to New York's "Operation Understanding" (the program of supervisor visitation and teacher exchange with schools in Puerto Rico). Such a program could also be extended to sections of our own country, as the South, and to other countries.

**Research Clearing House** Provision must be made on a planned, systematic basis for relaying to members of the staff all significant findings that emerge from studies and investigations. This relay should include not only written reports but practical demonstrations and, where pertinent, actual practice in using the findings.

In essence, time and resources must be provided for a carefully developed program of staff growth that not only will give every participating teacher and supervisor the information needed for more effective performance of his responsibilities, but also will challenge his professional interest.

If we accept the broad definition of the curriculum as all the experience the student has inside and outside the school, then this AFT National Design for the High School is an appropriate vehicle for fulfilling this objective.

## APPENDIX B
## RESEARCH AND EXPERIMENTATION

Careful evaluation of the program as a whole from the very initiation of the program is basic to sound growth. The evaluation must be skillfully planned under the guidance of the research staff assigned and in cooperation with the school staff and trained college personnel. All resources of the Board of Education, colleges and universities, public agencies and private grants should be used to design and conduct research.

In order to effectuate the research program, one school should be designated as the Research Center. It should have as consultant an "Academy of Research" composed of outstanding experts and specialists from the entire metropolitan community. The Research Center would serve as a clearing house for studies, explorations of new procedures and materials and would work in close cooperation with the departments of educational research, curriculum research and guidance.

Areas of action in research with experimentation would include the following:

**Organization and special classes**

- Grade unit
- Team Teaching
- Open-end grouping
- "Bridge" classes

**Involvement with groups**

- Campus school program
- Special community projects
- School-community aides
- Civic agencies (health, housing, welfare)
- Human-relations groups

**Special programs**

- Camping programs (summer, sleep-away, year-round)
- Summer day camp program
- Extended school day program
- Community library program
- Special parent-community programs
- Welcome program (new arrivals, orientation)
- Summer programs
- Exchange school program (teachers, parents, students)
- Use of multi-media in the education process

**Studies and projects**

- Approaches to teaching non-English speaking children
- Study of approaches to beginning and remedial reading
- Study of physical anomalies and the results of a correction program
- Studies of academic achievement in selected areas
- Studies of sequences in learning
- Studies of effectiveness of different patterns of preservice and in-service training and growth.
- Studies of the use of programmed materials and machines in motivating learning

Studies of utilization of community resources

Studies relating to motivation, human relations, the effectiveness of guidance, etc.

Although each of these areas of investigation has broad implications for the whole school system, nevertheless the focus imperative here is on the values pertinent to the students in the suggested program.

## APPENDIX C
## JOHN DEWEY HIGH SCHOOL: A MODEL FOR INNOVATION

At the experimental John Dewey High School in Brooklyn, interestingly enough, there are no up and down staircases. Students and teachers travel the spacious double width stairs in both directions at once without confusion, and this may well be the perfect symbol for the school's novel approaches. For example, most classrooms at Dewey have moveable walls; a period is called a module; traditional grades have been abolished; a "term" is seven weeks long; the curriculum offers over 1,750 course offerings (including sequential courses); and a student can, if he wishes, graduate in two years.

The $12,000,000 school opened its doors on September 8, 1969. Both the students and teachers are recruited on a voluntary basis. Students who live in the immediate school district have first choice; the remaining places may be filled from any other area in Brooklyn.

There are eight clear-cut features that set Dewey apart from the traditional high school:

**I. Teacher as Educational Catalyst**

Teachers create courses of study. Summer Institutes and time during the school year permit direct teacher involvement in curriculum development.

**II. 7-Week Cycles**

The regular school year is divided into five 7-week cycles (each approximately 36 school days). Every seven weeks students and teachers have entirely new programs. Teachers have 35 different classes in one year instead of ten. Counting major and minor subjects, students may have thirty-five to forty different teachers in a year instead of ten or twelve. The school is in operation for 12 months and includes an optional summer session which provides a possible sixth cycle.

**III. Programs and Records**

Individual programs for students are made by computer every seven weeks (five times each year instead of the traditional twice per year). In effect, all major recordkeeping is performed electronically. Report cards, attendance, lateness, admission and discharge data as well as information for use by guidance counsellors are printed out by the computer.

**IV. The 8-Hour Day and Modular Scheduling**

The 8-hour school day (8 A.M. to 4 P.M.) is divided into 22 modules (or mods) of 20-minute duration. There is one buzz every twenty minutes and no programmed time is allotted for the movement from place to place. This time system has been quite successful in moving students and teachers to their next assignments. For flexible programming, some classes meet for two mods (forty minutes), others for three mods (sixty minutes), and some for four mods (80 minutes). This

reduces traffic in the halls since the entire school population does not move at the same time.

### V. Resource Centers

Each curriculum subject area has its own resource center. For example, the glass-walled social studies center is surrounded on three sides by five social studies classrooms that are visible from the center. Its resources include private study cubicles, slide viewing machines and other audio-visual aids, books and documents and, most strikingly of all, a para-professional and a teacher are in constant attendance on a rotating basis. This setup provides for tutorial help and advanced study assignments as well as for immediate research as the need occurs during a class session.

### VI. Individual Progress

Students may take as few as six subjects and as many as eight in any 7-week cycle. In addition to classes, students may elect to do advanced work independently. Students may complete high school requirements at their own rates–some in two years, others in as much as six years if that length of time should be required.

### VII. Grading System

Every seven weeks each student is graded for each subject programmed: M (mastery); MC (mastery with condition); MI (mastery in independent study); or R (retention). For each R or MC evaluation the teacher must prepare a prescription form in triplicate indicating specific deficiencies or weaknesses. One copy is sent to the student's parents; the second is for his counsellor's file; and the third is sent to his next teacher to serve as a guide for remedial work.

### VIII. Independent Study

Each student's program includes independent study (I.S.) mods, or periods. More independent study mods are given to students who may need tutorial help or who are working on special projects. Less I.S. time is available for students who wish to take more class subjects. Every student has full freedom to decide what to do with his I.S. time. Some sign up for advanced work which involves a DISK (Dewey Independent Study Kit). This enables a student to do advanced material on his own. Each DISK contains a calendar of lessons, educational objectives, assignments and suggested topics for a research paper or project.

At the end of seven weeks students may meet the requirements for mastery by passing a two-hour written test in addition to completing an oral comprehensive exam and/or a special project. About 500 MIs are earned each cycle. Over 100 students master ten or more DISKS each year. Students may ask for extensions on time and not take the examinations until they feel that they are ready. Some may work on a DISK for two cycles or more. There is no penalty for failure on a DISK and students are free to drop a DISK.

Students may try a DISK if they have been retained in a subject and wish to repeat the unit independently rather than in a retention class.

Pupils who have tried this method have not been as successful as those who have used a DISK for advancement.

Some students seek tutorial help in the subject area resource centers where teachers are available throughout the day. Others do homework, participate in sports, dance, art, drama, or some club activity. Some read, view filmstrips, or just sit and talk. Some go to the cafeteria which is open most of the day for snacks while others stroll about the campus, which they are free to do.

**The Four And One Program**

Another independent study program is the *Four and One*. Students may participate in an interneship program one day a week which means they spend a full day in the courts, hospitals, other schools, museums, business or any place in the world of work. Seniors may sign up for a 7 week interneship which permits an interneship out of the school in one cycle and they come to school the next cycle. These students alternate cycles one in school and one out in interneships. No pay is given. They write reports on these outside of school experiences and receive an MI based on their performance at the worksite and their written projects. There are more than 100 students in each 7 week period doing this.

**Independent Study Group Activities'** main purpose is to provide another option for a student during their independent study time. At John Dewey High School about 25% of the students' eight hour day is unassigned. During this free time students may attend a variety of planned activities. These include demonstrations, slide-lectures, speakers, films, discussions, dramatic presentations, music concerts, debates and contests. Activities may be part of a regular series, repeated several times a day or be "one-shot specials." Students, teachers and outside groups plan and perform. They may appeal to small groups of ten or draw audiences of several hundred. These activities may be course-related, informational, special-occasion oriented (i.e. Martin Luther King's Birthday) or "entertainment-centered" (a necessary factor for some students in an 8-hour day). This program also relieves the pressure on the building's resource centers or library when large numbers of students have independent study at the same time.

What percentage of the students spend this independent time judiciously? Independent study has been designed for student-motivated acceleration, creativity, remedial work, tutorial sessions or homework—and most pursue these goals effectively.

These eight key factors provide the framework for a unique teacher-student relationship at Dewey H. S. There is an openness in communication in which the students feel free to express their opinions about the learning process. "Can't we have more lessons like this one?" There is no hesitation to comment on whether a lesson was effective or not. Just as courtesy on the school's two-way staircases is spontaneous and easy-going, so is the criticism.

Students feel a responsibility to react honestly because they want the Dewey experiment to succeed. Most teachers everywhere know when a lesson falls short of its goals, but the difference at Dewey is that it is

discussed openly. The challenge from lesson to lesson is how we can do better.

Since students and teachers have new programs every seven weeks, there are frequent new faces for the teacher and a new teacher personality for the students. For most this has worked well. It is considered one of the strengths of the experiment. The curriculum for each 7-week unit is tightly packaged and there can be no lag in the momentum of learning. Final evaluations must be made within weeks rather than months.

Teachers get to know their students more quickly. There are "performance pressures" on both teachers and students. Several test instruments have to be used in a span of weeks. Most students prefer unit testing rather than end-term finals. On the other hand, there are some students who think that Dewey teachers are "test happy."

Who are the likely candidates for retention (not passing and moving on to the next unit) after seven weeks? Usually they are typical of those in other schools—the absentees, those with learning problems and the underachievers. However, there is a difference in what takes place once retention has been scheduled.

Retention is for seven weeks not five months. Our goal is to tailor repetition of work to individual needs, based on the detailed prescription forms (really profiles of student work) filled out by previous teachers. We are devising methods to do this more effectively and the students are responding well.

**Key Features**

What about other key features at Dewey? Here are some glimpses into major aspects of our program:

The flow of students in and out of the library changes every twenty minutes. Some students spend longer blocs of time there but the bulk of the traffic comes and goes 22 times in an 8-hour day.

The librarians are thrilled by student interest and use of the library. The learning atmosphere is most impressive as one sees students quietly absorbed in books while sitting in brightly colored lounge chairs.

The building also has a computer terminal, which produces a variety of print-outs; copies of student programs; class lists; a biographical student file in spiral book form; a master class program book arranged alphabetically; an alphabetical listing of teachers' programs; lists for guidance counsellors; and many more invaluable aids. What is more astonishing is that most of these forms are automatically prepared every seven weeks. According to those in charge of scheduling the seemingly complex organization at Dewey, "What used to take eight people two weeks to do can now be done in 45 minutes."

Class programs are ready the first day of each cycle. Five days before a new cycle begins there are about three trial runs of the master schedule which indicates course, teacher, number of students per class (also number of males and females) and remaining seats available.

A specific illustration will show what can be done. Each official class teacher has an alphabetical set of IBM cards—one for each student. Every morning the teacher removes from the pack the cards of all absentees and sends them to the attendance office. Information is fed into the computer

for those absent or late prior to 10 A.M. The computer automatically prints out post cards for the absentees which are mailed from the Computer Center. The computer also puts a cumulative record of absence and lateness on report cards every seven weeks.

Competitive sports are intra-mural and not interscholastic. All students are encouraged to be on a team and there is no emphasis on creating star athletes. Team playoffs occur during the school day. Students come rushing to their next classes buoyed by victory or crushed by defeat. Sometimes, when two teams with reputations as winners are scheduled opposite each other, anxious eyes in classrooms try to follow the game from nearby windows.

Each cycle is devoted to one sport exclusively, such as touch football for one seven week period or wrestling for another. The beginning of each cycle introduces the sport to be studied by demonstration lessons, followed by instruction and practice for development of the skill by all.

We have no grade advisors at Dewey. From the viewpoint of the Guidance Department, the major innovations of the Dewey system are working well. The flexibility, the individualization, the self-direction and self-discipline are all on the plus side for most of the students. More time is needed to read the Dewey prescription forms than would be the case with numerical grades. However, counsellors find some students who have not developed a positive approach to independent study and others who need intensive remedial work to succeed. For those who have reading and writing problems a Language Skills Center is in operation. With the multiple mechanical devices and teacher specialists the center has had excellent results. Some of these students are so motivated that they spend their independent study time there and obtain MIs for achieving higher reading levels.

Students have a choice of 16 different courses in art for each 7-week cycle. A student may try a variety of activities during a school year including film making, sculpture (wood and stone), fashion design, advertising, crafts, printing or painting. On the other hand, a student may specialize in one field. In art the ability to try another new area every seven weeks is especially satisfactory. For example, if a student tries a course in crafts and is disappointed in his aptitude, the following cycle he may try another creative experience.

In addition to the 60-minute art class sessions, students may spend extra time working independently or participate in one of the six art clubs which are programmed during the school day. In the future, modular scheduling may provide for even longer periods than an hour for art classes.

These classes are fully equipped and function more like professional studios than classrooms. Walking from one art room to the next, a visitor senses the steady flow of excitement and energy which are being transmitted to the clay, canvas or papier-mâché.

Changing teachers every seven weeks in the language department has a special advantage in tuning the students' ears to hear the language spoken at different rates of speed and with different accents. In the language resource center and the language "lab", students are further exposed to voices speaking the same language.

The 7-week cycle also helps to meet individual needs. For example, the unsuccessful student does not have to face defeat in a class for six months but can get a fresh start with a new teacher who has a prescription with information on his weak points.

The more gifted language students use the resource center for conversational opportunities. The language lab is specially useful for independent study. Students who shy away from a regular foreign language course may elect conversational Spanish or French.

Dewey has a Marine Biology course which is most stimulating for both the students and teachers. Frequent trips to the nearby beaches or Coney Island provide specimens to work with and first-hand knowledge of oceanography. They return to school for their next classes panting with excitement and bursting with the thrill of discovery. Modular scheduling provides adequate time allotments for these field trips and also for lab work.

At Dewey each student gets to dissect a frog. Those who need additional time to finish this or other projects may continue in independent study. Bells do not signal an untimely end!

One science room has been converted into an aquarium. Student volunteers feed the aquatic animals, monitor the filters and clean the tanks.

The Music Department finds the 7-week cycle satisfactory for required courses but not so convenient for chorus, orchestra, or instrumental classes. The band will never play if the students can switch in or out every 7 weeks!

Independent study is excellent for serious music students who wish to practice in individual rooms or consult with their teachers. The music resource center has attracted some students for recreational purposes. Sometimes there is a conflict of interest with those students who are aiming for serious careers rather than recreation. Problems such as these have been somewhat solved by the Madrigal Group which meets before 8 a.m. and after 4 p.m., thus partially freeing the center for intensive training purposes.

Typing is a required course for every student attending Dewey. Within a few months some students are typing assignments or reports for other subjects. Students who do not learn the keyboard by the end of seven weeks do not move into the second phase of the typing course. Since one skill builds on the previous one in mastering the keys, retention for 7 weeks is much better than foundering for five months on the keyboard. Those who fall behind have lessons planned to deal with individual deficiencies. Sometimes a student with a highly individualized problem is sent to the typing resource center.

Some students have taught themselves steno and accounting using a DISK, as well as special tutoring from teachers in the resource center. One student who did the introductory lessons in shorthand by himself during the first 7-week cycle and then joined a class in the following cycle led the class in performance. Accounting studied independently has proven very successful. Clerical practice and recordkeeping are not separate courses but are woven into the overall curriculum.

The business education resource center affords students extra time to

spend on developing speed and accuracy in typing and shorthand. The shorthand lab is open during the entire 8-hour day so that students may select pre-recorded lessons in either typing or steno. This department is a showcase in audio-visual materials and modern equipment, which includes electronically taped instruction for typing and diatype, a diagnostic machine which indicates individual "typing ills" plus instructions for correction.

Courses in mathematics at Dewey have been designed on the principle that no two students learn at the same rate. Algebra, for example, may be completed in three cycles, five cycles, seven cycles, ten or even twenty.

Students can move at faster or slower speeds of learning as this becomes advisable. No student need sit for more than a week or two in a course that he cannot follow or in a course that is below his level of competence. Improper placement can be rectified in weeks rather than month. Another advantage at Dewey is that two, 60-minute sessions a week in math provide for uninterrupted development of complex concepts.

Some 10th grade students are doing computer math, vector geometry, abstract algebra, logic or elementary analysis in independent study. Talented students can easily advance by working on their own. Two students who studied geometry for three months took the Regents in January—one got 100 and the other 95!

Students who are weak in math can reinforce or obtain help with homework on an individual basis during independent study time. Some students find that they can ask questions or admit difficulties more easily in the informal setting of a resource center rather than in the classroom.

Literature courses are ideal for independent study in English and there are usually over 100 students in one 7-week cycle working on the short story or modern novel DISKS. When they complete the required readings, students take a two-hour examination. While doing their reading independently, they also take another course in class. The reading pace in some English courses is a paperback a week.

Power reading is offered in every cycle for those who wish to improve their reading skills. Students have a choice of one of 27 courses in the cycle. Some courses are sequential, such as creative writing, journalism or drama.

Students who wish to pursue a highly specialized area of English studies will have the opportunity to take multiple workshops and advanced seminars. For example, a student talented in theatrical arts will be able to examine the genre in depth, learn dramatic techniques, participate in acting and speech workshops, and take seminars on play direction, film production and an interdisciplinary course with the Art Department in stagecraft.

Independent study in social studies is a modified version of the "ordeal" of Ph.D candidates. After the required readings are done, each student takes an oral comprehensive on the unit of work before a panel of three teachers, plus a two-hour written test. A research paper is another pre-requisite for mastery. These standards are high but most students have demonstrated an ability to learn well on their own. There are over 100 in one cycle doing very advanced work.

Reading in social studies is an integral part of the learning process.

There is an emphasis on the inquiry-discovery approach combined with the best features of the thematic teaching. Sustained projects are possible because most social studies classes meet four times a week; two one-hour sessions and two forty-minute sessions. Standard textbooks are used primarily for background information. Lessons are constructed around reading excerpts from a variety of sources. In area study courses, students are exposed to as many as six paperbacks in one cycle. Class sets of novels, biographies and non-fiction are available.

A teacher team has worked successfully in lesson planning, preparation of materials, and there are 40 different 7 week courses in social studies. Student choice of courses result in many taking more credits than required. They learn history in a variety of courses such as the Jazz Age, Women in America, Law and Public Policy, The Supreme Court, The American Indian, and The American Dream.

**Teacher Attitudes And Pressures**

The 8-hour day is a long one. The pace during the day is fast. Changing from a classroom teaching situation to a tutorial program in the resource center does not slacken the pressures. Building assignments are physically tiring (the building is enormous). Preparation time, fully utilized, is not sufficient to avoid taking work home.

There is only one opportunity to slow down—lunch. By the time a teacher comes and goes to the cafeteria a leisurely period adds up to 30 minutes in an 8-hour day. The professional job at Dewey requires great stamina and a dedicated spirit. The teachers in the experiment have the spirit; the big question is, do they have the stamina?

Several teachers in each department have been designated as independent study coordinators. The coordinators are responsible for assisting students preparing evaluation instruments and making a final decision for each one as to whether the work has been mastered or not. The responsibility for supervising 100 students on independent study reduces the coordinator's instructional time to four classes instead of five. Simple arithmetic—100 students is almost the equivalent of 3 class registers. This is the exchange for a reduction of one class assignment!

There was a human need at Dewey, and it was a crucial one, for a pause between cycles. Teachers wanted a day to evaluate the cycle just completed, plan for the new one, and discuss problems. Students at Dewey have unusual pressures, too, and they expressed a need for one day at the end of every 7 weeks to participate in activities other than regular classes.

Both faculty and students worked together to devise a program for an intercycle day and our school now has its "Dewey Day" which has brought students and staff together in a way the classroom could not. It is the first time in a city school that a day is planned in which students and teachers can elect activities from a variety of workshops, discussion groups, or special attractions. These options include a wide choice and the program for each intercycle day is different.

The last day of each cycle offers the students and teachers an opportunity to share time together in which traditional roles disappear. Teachers and students face each other as equal members in a group. They

argue or laugh together and appreciably narrow any generation gap that might exist.

A brief description of some of the activities may convey the spirit and success of these events. Topics for discussion groups, such as those listed below, indicate their special relevancy. Role playing has been used whereby teachers act the part of teenagers, and students portray adults. This creates a greater sensitivity for the feelings and reactions of varying age groups.

A free exchange of ideas without a final judgment by a teacher reveals student depths that only open communication can produce. These encounters also result in teachers' telling personal experiences that would rarely come forth in a classroom.

Discussion groups have dealt with the following topics: Student Rights; Student Code of Behavior; Evaluation of Courses; Evaluation of John Dewey High School; Student Racial Relations; Narcotics; Censorship of Student Publications; Women's Liberation; Generation Gap; Parents; War; Black and Puerto Rican Cultures.

On Dewey Day, students and teachers may share common interests such as joint participation in workshops on jazz, sculpture, ceramics, dance, chorus, computers, poetry, fashions, psycho-drama or travel. Varied contests are offered, such as in typing, basketball and wrestling. There also is a student-teacher competition in a ball game.

The language department featured international cafes on one Dewey Day where the decor, food and entertainment provided an atmosphere to resemble places in France, Spain, Italy and Israel. Students and teachers enjoyed eating the delicacies of these foreign cuisines. Singing the songs and dancing the dances of these countries furthered the feeling of comradeship among students and faculty.

The science department gave the Future Physicians Club the opportunity to dissect pigs and the pharmaceutical group to conduct many experiments, one of which was injecting "speed" into a mouse. On another Dewey Day the ecologists conducted a funeral entourage through school corridors for the death of pollution and the mourning attire consisted of masks solemnly worn by all. Exploring the resources of the city was another Dewey Day program. A country fair on the 13 acre campus in the spring has become a Dewey Day tradition.

Dewey Day at its best is a day of renewal that reflects the hope and aspiration of John Dewey High School. It attempts to convey the spirit and the dreams of the educational philosopher who spoke so movingly about "learning by experience, motivated by a sense of the students' needs."

Within the walls of our beautiful building, there is an atmosphere of excitement and anticipation. We feel that we are blazing new paths, paths that will help solve some of the complex problems facing all schools today.

## APPENDIX D
## A MODEL FOR AN ALTERNATIVE SCHOOL

City-as-School, a new New York City alternative high school program, opened its doors on February 2, 1973 with 100 students registering and enrolling for hundreds of "learning experiences" throughout the city.

The opening culminates five months of intensive planning by teachers and students under the supervision of Frederick J. Koury, director, and Richard Safran, assistant director, who were detached from their schools to set up initial organization for planning and development.

Unique to the experiment is the fact that 10 student planners were selected from various high schools in New York City to work on planning. The collaboration of students and teachers was successful as students learned how to organize recruiting drives in high schools and visited the hundreds of organizations in the city to "sell" them on being a resource of City-as-School.

Originally funded by the Ford Foundation, City-as-School now becomes a tax-levy organization operating from 131 Livingston Street, Brooklyn, under the umbrella of the High School Office of the Board of Education.

The underlying concept of City-as-School is that the world of experience can be joined with the world of learning.

As Superintendent Oscar Dombrow commented, "Going to high school in New York City need not be like going to high school in Santa Rosa, California." City-as-School most definitely will be unlike any other school in New York City. Instead of attending school in one large building, students will move from "learning experience" to "learning experience" based on the program they make out by consulting the C-a-S catalogue. The hundreds of learning experiences run the range from English and communication arts to practical and technical subjects. Brooklyn Polytechnic Institute and Brooklyn College both institutions of higher learning, have become part of the C-a-S program, taking students in advanced standing for freshman subjects in English, social studies, mathematics and science.

Other organizations involved in City-as-School are Lincoln Center for the Performing Arts, the Center for Inter-American Relations, the China institute, the Asian Society, the Metropolitan Museum of Art, Brooklyn Heights Press, the YMCA and the YWCA, WNYE-TV, the New York City Department of Consumer Affairs, the Federal Trade Commission, Equity Library Theatre, Greenpoint Hospital, Brooklyn Friends School, and many others.

Four licensed teachers, a guidance counselor and a secretary are on the staff of C-a-S in addition to the director and assistant director. They will be providing the necessary services to the students and will be working closely in evaluating the learning experiences. Each teacher will have 25 students to work with as instructor, friend and advisor.

On February 6 students began their City-as-School experiences. The next crucial task will be to monitor each learning experience so that evaluative and measurement techniques may be developed. The C-a-S staff is requesting that a representative professional committee be established

from Superintendent Dombrow's Task Force on High School Redesign. This committee will assist C-a-S in establishing criteria for creditation for the external learning experiences.

Parkway in Philadelphia and Metro in Chicago were the first large city prototypes. Directors Koury and Safran learned much from visits to those two high school programs.

## APPENDIX E
## A MODEL FOR OPEN CLASSROOM PROCEDURES

### I. Lesson Description

One day last week, during a forty minute session of a third level Hebrew class, the following activities took place: seven different stories were read, discussed and analyzed; three different structural topics were explained and practiced with both oral and written drills; two tapes were used to reinforce the application of structural items that had already been mastered; records of poetry set to music were listened to by students to help them in their appreciation of the poems they were reading; two lessons of a cultural nature were worked on—one dealing with the different forms of Israeli government and a second surveying the more important geographical features of Israel; and eight different tests were taken—some testing units of related stories, others testing structural topics, and still others testing familiarity with cultural items.

### II. The Open Classroom

All this could certainly not take place in the span of one forty minute class meeting—not, that is, in the traditional teacher-dominated type of lesson, with the teacher at the front of the room leading a large group of students in a single type of instruction and expecting all students to do the same work, at the same time, and in the same manner. But all of the above-mentioned activities can and do, in fact, take place each day under an interesting system of individualized instruction known as the "open classroom." Each student, working at his own rate of speed, selects that lesson for which he knows that he is ready, based upon his mastery of previous lessons in his prescribed course of study, and with the aid of a carefully designed packet of self-instruction, he proceeds to learn the new lesson in his own way.

### III. Philosophy

The theory underlying the principle of the open classroom is, in fact, quite simple. Since no two individuals are exactly alike, they can not be expected to learn in exactly the same way. As a result, the traditional idea of teaching one set lesson to an entire class, even though the teaching techniques themselves may be quite effective, eventually leads to the very serious problems of boredom, partial student involvement, and passivity. In the much freer atmosphere of the open classroom, on the other hand, each student becomes directly and actively responsible for his own learning. Working at his own self-determined pace, and in the style which he finds most comfortable, the student soon comes to accept full responsibility for his work and begins to develop a positive attitude and an accompanying enthusiasm that are so essential to true learning.

### IV. Mechanics: The Introductory Packet

The mechanics of organizing an open classroom involve careful pre-planning on the part of the teacher, as well as constant and close supervision of the program as it develops from day to day. At the start

of the program, students, and their parents as well, must be introduced to the totally new concept of complete individualization of instruction within the framework of the open classroom. They are therefore given an Introductory Packet which lists the procedures they are to follow and explains how to do the various types of lessons. The teacher and students then discuss how they are going to learn, what the benefits are, and what responsibilities are involved.

NOTE: Detailed specifics can be obtained by writing to John Dewey High School, 50 Avenue X, Brooklyn, N.Y. (Phone (212) 373-6400).